



Date of Application, 12th Sept., 1889—Accepted, 14th Dec., 1889

COMPLETE SPECIFICATION.

An Improved Dental Plate Metal, Applicable also to other similar Purposes.

I, JOSEPH PORTER MICHAELS dentist, of 45 Avenue de l'Opéra, Paris, France do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

5 The object of my invention is to provide an improved plate, of gold, silver, platinum and such like, for use in dentistry.

My new plate is characterised by the great facility with which it can be made to conform with and assume with great precision all undulated or irregular shapes and forms and maintains the same permanently.

10 The object I have in view with my improved dental plate, is to obtain exact counterparts of all raised or indented surfaces with a precision and a rapidity unknown and unobtainable in the present state of dentistry.

Fig. 1 is a front view of my improved flexible plate-metal, and fig. 2 a side elevation of the same in section through the line *a b*, fig. 1.

15 I take a sheet of gold, platinum, silver or other suitable substance, of appropriate thickness, such, for instance, as is usually employed by dentists, for dental purposes, and I indent one of the surfaces of such plate, as shown in fig. 1 & 2.

Such indentations can be made either by rolling or by means of dies; I do not however lay down any precise rules for the manufacture of the said plate, as it can
20 be made in any other desired way. Nor do I insist on any peculiar shape for such indentations or depressions, which may be varied considerably in practice. For instance, they may be made in the shape of squares and such like. The figures on the accompanying drawing are on an enlarged scale, for the purpose of more clearly indicating the configurations of the plate.

25 When the plate is applied on a raised surface, it can be depressed so as to reach and come in contact with all indentations as well as all raised parts of the said surface, simply by exerting a pressure with the fingers, or if requisite or preferred, with any suitable soft tool or other convenient instrument.

In fig. 3 I have shown, as an example, the shape which a plate can be made to
30 assume; the teeth of the plate may be at any desired distance apart, as shown in fig. 5.

After the plate has been caused to assume the requisite shape, gold, silver or other solder (according to the metal of which the plate is made) is run on the indented surface so as to fill up said indentations, as shown in fig. 4. By this
35 means, the plate acquires an equal thickness throughout and consequently the requisite rigidity and it follows that a plate produced in this manner is an equivalent to a solid plate manufactured by stamping, in the usual manner.

By my invention, a reproduction can be taken off a plaster of Paris cast and I can produce in ten minutes a dental plate, which, by the present methods, would
40 otherwise require as many hours.

The above described arrangement of plate-metal is applicable to the manufacture of jewellery and similar purposes.

I wish it to be understood that the shape of the depressions or indentations may vary and moreover that any convenient thickness of metal can be reserved at the base
45 of the indentations; as a general rule however, I consider that a plate in which the indentations are equal to four fifths of the thickness of the said plate, will answer well in practice.

[Price 6d.]

Michaels' Improved Dental Plate Metal Applicable, also to other similar Purposes.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is :—

1st. The hereinbefore described plate-metal for dental and other similar purposes, rendered flexible by forming, on one of its faces, a series of indentations or depressions, 5 substantially as described & shown.

2nd. The hereinbefore described means of making dental plates consisting in employing a piece of the flexible plate-metal set forth in claim 1, in shaping said piece as required and then in rendering the shaped piece stiff by filling the spaces between the indentations with gold or any other suitable solder, substantially as 10 described and shown.

Dated this 12th day of September 1889.

J. P. MICHAELS.
Per L. W.

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[This Drawing is a reproduction of the Original on a reduced scale]

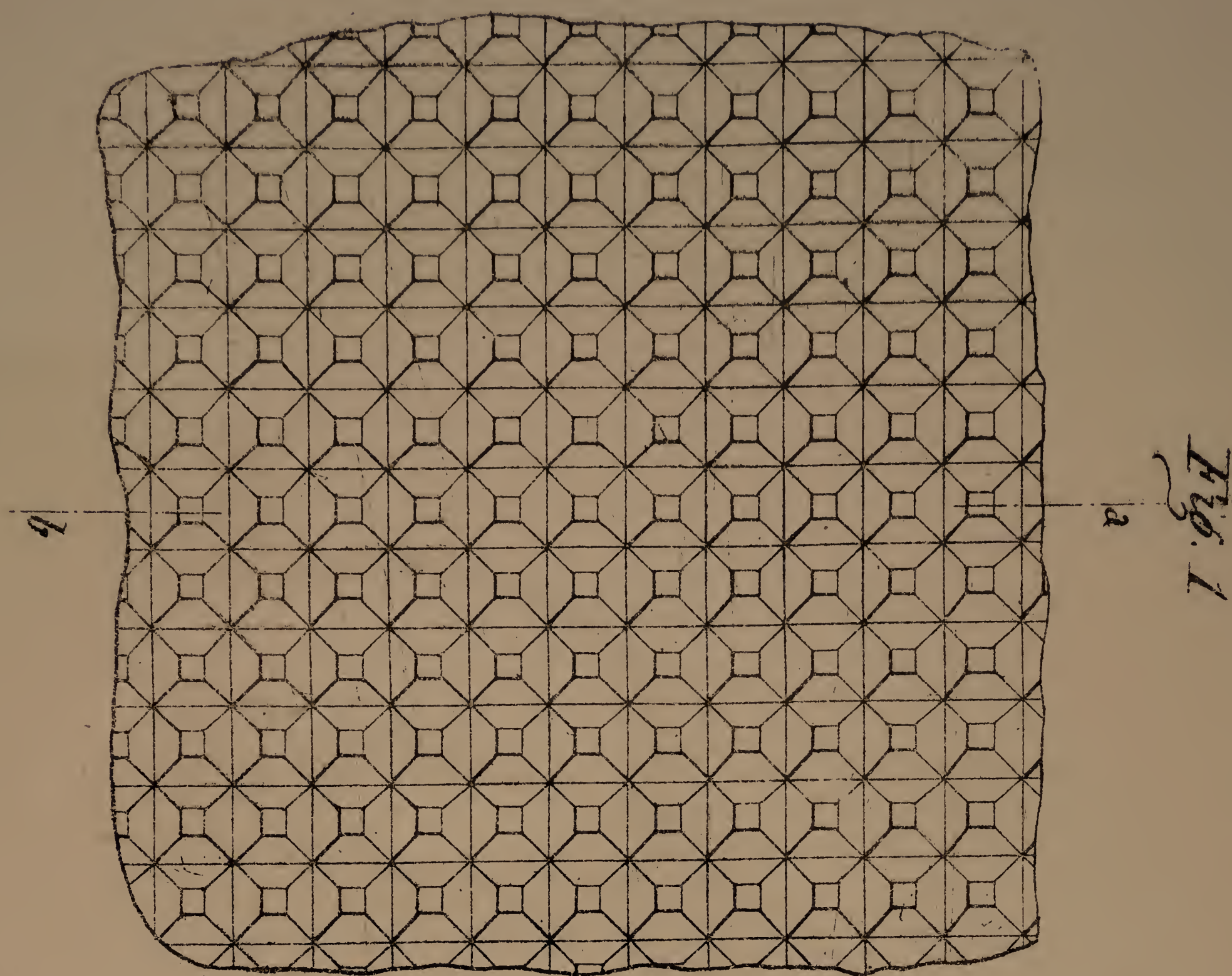


Fig. 1



Fig. 2.

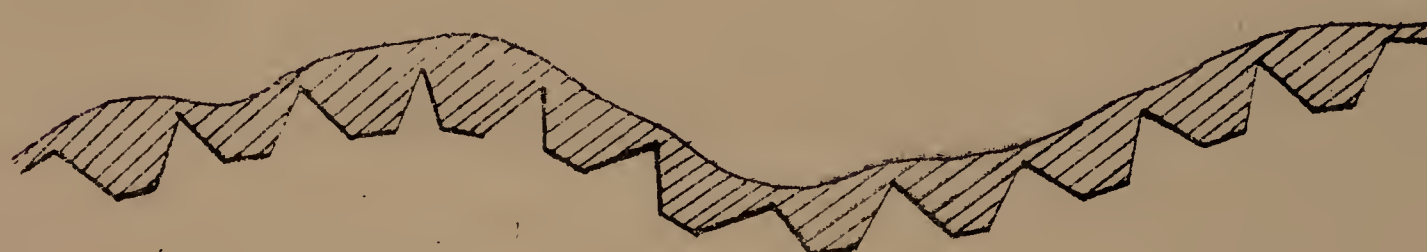


Fig. 3.

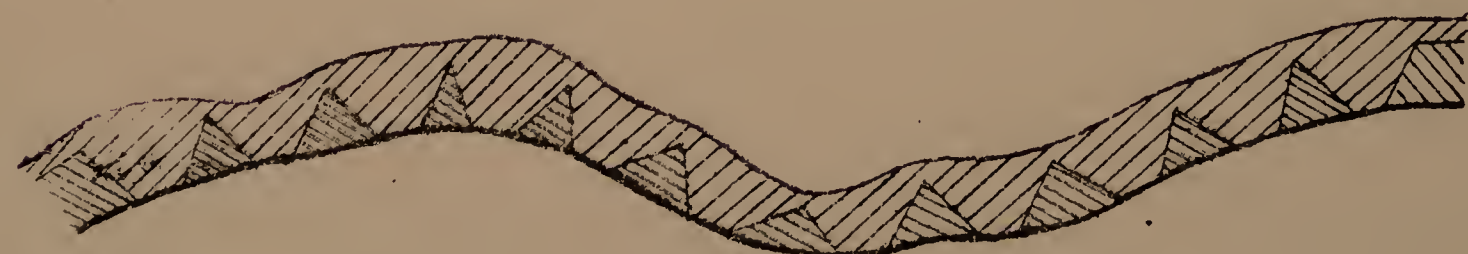


Fig. 4.

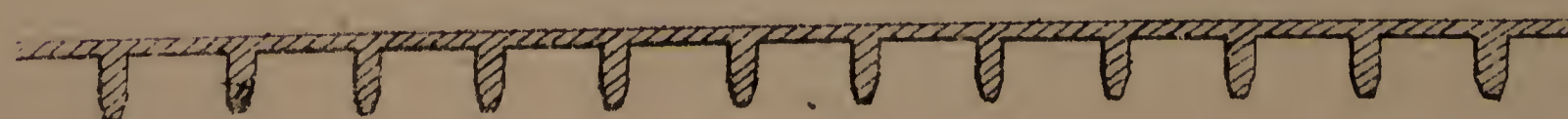


Fig. 5.

